



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,846	07/17/2006	Stephen J. Wilkinson	BKR-26502/01(DWS)	2296
25006	7590	03/20/2009	EXAMINER	
GIFORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C. PO BOX 7021 TROY, MI 48007-7021			THROWER, LARRY W	
ART UNIT	PAPER NUMBER			
	1791			
MAIL DATE	DELIVERY MODE			
03/20/2009	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,846	Applicant(s) WILKINSON ET AL.
	Examiner LARRY THROWER	Art Unit 1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 February 2009.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 26-68 is/are pending in the application.
 4a) Of the above claim(s) 48-68 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 26-47 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/DP/0656) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed February 25, 2009 has been entered. Claims 26, 34, 39, 41 and 45-46 are amended; claims 1-25 were previously canceled; claims 48-68 were previously withdrawn. Claims 26-47 are under examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 26-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. The term "very low friction surfaces and anti-fouling properties" in claim 26 is a relative term which renders the claim indefinite. The term "very low" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 26-29, 31-32 and 36-47** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frost *et al.* (WO 98/58788) in view of Proos *et al.* (US 5,335,935) and the APA (admitted prior art; paragraph references to US 2007/0023959).

- Regarding **claim 26**, Frost *et al.* discloses a method of molding an article for underwater use (page 4, lines 20-24) having a relatively small thickness in relation to its dimension in plan (page 2, lines 18-20). The method includes providing a mold for the article (page 2, line 21), locating or forming one or more inserts on a mold face which defines a part of the surface of the molded article (page 2, lines 22-24), introducing a material to be molded into the mold (page 2, lines 25-26), the material having very low friction surfaces and anti-fouling properties (page 4, line 20 - page 5, line 7), maintaining the mold in an orientation while the material hardens such that the mold face is inclined to the horizontal at an angle at which the insert is retained on the face against slipping by friction during the hardening of the material (page 2, line 27 - page 3, line 3), and providing gas-outlet means from an upper part of the mold in the orientation to allow the escape of gasses during the molding process (page 3, lines 4-6).
- Frost *et al.* fails to disclose providing attachment means with an irregular surface in contact with the material. However, Proos *et al.* discloses a method for molding an article having a relatively small thickness in relation to its dimension in plan (abstract), wherein a material is injected into the mold to form a backing layer bonded to the material (abstract), and providing attachment means with an irregular

surface in contact with the material (col. 3, lines 19-21). As taught by Proos *et al.*, providing such attachment means as a roughened layer prior to molding produces "...projections which are securely embedded within the resinous backing layer during molding such that the leather layer and the resinous backing layer are strongly bonded to one another." (col. 3, lines 21-25). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Frost *et al.* with the attachment means of Proos *et al.* to securely embed the material to the attachment means such that they are strongly bonded to one another, as taught by Proos *et al.*.

- Frost *et al.* is silent as to the material being silicone. However, the APA discloses silicone material for use in the molding of underwater signs with anti-fouling properties and very low friction surfaces to be well known in the art. Specifically, the APA states that, "[s]uch plastics are known in the art and do not form part of the present invention" (¶¶14-15; emphasis added). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected silicone to produce an underwater sign because such material was well known for its anti-fouling and low friction surface properties, as admitted in Applicant's own specification (¶14).
- Regarding **claims 27-28**, Proos *et al.* discloses the attachment means being a flexible sheet (col. 3, lines 19-26).

- Regarding **claims 29, and 31-32**, Proos *et al.* discloses the attachment means being mechanically roughened to form short bristles (col. 10, lines 64-66) and ribbed (claim 8).
- Regarding **claims 36-38**, Proos *et al.* discloses the attachment means being impermeable polyvinylchloride (col. 9, lines 60-65).
- Regarding **claim 39**, Frost *et al.* discloses during the introduction of the material to be molded, the mold is supported in an orientation in which the mold face is substantially horizontal and, after the introduction, is moved to an inclined orientation at an angle at which the insert is retained on the mold face against slipping by friction, for the article to harden (claim 2).
- Regarding **claims 40-41**, Frost *et al.* discloses the insert being retained in the finished article (claim 3), and in which the insert is a partially-cured molded article which hardens and bonds to the molding material as the molding material hardens (claim 4).
- Regarding **claim 42**, Frost *et al.* discloses a plurality of the inserts being molded in a single mold body so shaped that the inserts have a predetermined spacing and orientation, which is maintained as the inserts are transferred to their position on the mold face (claim 5).
- Regarding **claim 43**, Frost *et al.* discloses the insert to be retained is molded directly on the mold face by means of subsidiary mold means which are removed when the insert has cured sufficiently to be at least substantially cohesive (claim 6).

Art Unit: 1791

- Regarding **claim 44**, Frost *et al.* discloses the subsidiary mold means including a template having cut-out portions defining the insert, and material for forming the insert being applied to the apertures in the template (claim 7).
- Regarding **claim 45**, Frost *et al.* discloses the template being placed in contact with the mold face and the material for forming the insert applied thereto by spatula and scraped off level with the surface of the template (claim 8).
- Regarding **claim 46**, Frost *et al.* discloses a transfer sheet being applied to a partly cured insert to maintain the component parts thereof in a predetermined relative orientation and spacing upon transfer from the mold body to the mold face (claim 9).
- Regarding **claim 47**, Frost *et al.* discloses the template being cut by a cutter controlled by computer means which is programmable to determine the shape of the cut-out portions to be changed to form different inserts (claim 10).

7. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Frost *et al.* (WO 98/58788) in view of Proos *et al.* (US 5,335,935) and the APA, as applied to claim 26 above, further in view of Amano (US 4,963,413).

- Frost *et al.* in view of Proos *et al.* fails to disclose chemically the surface of the attachment means. However, Amano discloses chemically etching an insert in a mold prior to injecting a material onto it (abstract; claim 3). As taught by Amano, chemically etching the insert chemically activates it so that the insert and material "...are firmly adhered to each other." (col. 4, lines 39-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

have modified the method of Frost *et al.* with the chemical etching step of Amano to chemically activate and firmly adhere the material to the insert, as taught by Amano.

8. **Claims 33-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frost *et al.* (WO 98/58788) in view of Proos *et al.* (US 5,335,935) and the APA, as applied to claim 26 above, further in view of Billarant (US 4,617,214).

- Frost *et al.* in view of Proos *et al.* fails to disclose the attachment means being knit loops, Velcro-like or velour. However, Billarant discloses molding an article with an insert having attachment means which include loops, velour and are Velcro-like (abstract; fig. 1; col. 1, line 65 - col. 2, line 2). As taught by Billarant, attachments having these shapes "...firmly bond to the molding material during the molding operation." (col. 1, lines 20-23). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Frost *et al.* with the attachment shapes of Billarant to firmly bond the molding material to the attachment means, as taught by Billarant.

Response to Arguments

9. Applicant's arguments with respect to claims 26-47 have been considered but are moot in view of the new ground(s) of rejection. To the extent the arguments are applicable to new grounds of rejection they are addressed below.
- Applicant first argues that the molded article of Frost *et al.* is not intended for underwater use. Applicant's arguments do not appear to consider the teaching of

Frost *et al* at page 4, lines 20-25. Frost *et al.* discloses the following: "[t]he preferred use of the invention ... is in the moulding of underwater signs for which special plastics material with anti-fouling properties are required. Such plastics are known in the art." (emphasis added; page 4, lines 20-25). Thus, the molded article of Frost *et al.* is specifically intended for underwater use.

- Applicant further argues that "...the Proos patent is directed to an entirely different field" because the patent deals with vehicle airbag molding rather than underwater materials. This argument has been considered but is not persuasive. A person of ordinary skill is presumed to have the ability to select and utilize knowledge from other arts that are reasonably pertinent. *In re Antle*, 444 F.2d 1168, 1171-72, 58 CCPA 1382, 170 USPQ 285, 287-88 (CCPA 1971). Such is the case here. Both references are directed to the molding of plastics, and a person of ordinary skill in the art would certainly have the ability to consider both references together at the time the invention was made, particularly in light of Proos' teachings that other materials and "...molded parts for applications other than vehicles can be produced using the method" (col. 13, line 62 - col. 14, line 2).
- Applicant finally argues that Proos discloses an opposite arrangement of method steps and thereby renders the combination inoperable. This argument has been considered but is not persuasive for two reasons. First, the method as claimed requires no particular order with regard to the steps of introducing the material into the mold or providing attachment means with an irregular surface. Second, Proos is cited as teaching that attachment means such as a roughened layer produces

projections which are securely embedded within the resinous backing layer during molding such that the leather layer and the resinous backing layer are strongly bonded to one another. The order in which the material or attachment means are introduced into the mold is irrelevant and does not, as Applicant asserts, render either Frost *et al.* or Proos inoperable.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LARRY THROWER whose telephone number is 571-

270-5517. The examiner can normally be reached on Monday through Friday from 9:30AM-6PM est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Larry Thrower/
Examiner, Art Unit 1791

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791